

# **Solid Waste Stabilization and Disposition (RL-0013)/Soil and Water Remediation, Groundwater and Vadose Zone (RL-0030)/Operate Waste Disposal Facility (RL-0080)**

**R. T. Wilde, Vice President, Waste Disposal/  
Groundwater Remediation/(509) 373-0402**



**Initiated drum retrieval operations in  
Trench 4 on January 13, 2004**

## INTRODUCTION

This section addresses Project Baseline Summary (PBS) RL-0013, *Solid Waste Stabilization and Disposition*; RL-0030, *Soil and Waste Remediation Groundwater/Vadose Zone*; and RL-0080, *Operate Waste Disposal Facility*

NOTE: Unless otherwise noted, all information contained herein is as of the end of January 2004.

## NOTABLE ACCOMPLISHMENTS

**Transuranic (TRU) Waste Program:** Fluor Hanford completed five shipments of TRU to the Waste Isolation Pilot Plant (WIPP) in January 2004. A total of 100 cubic meters (m<sup>3</sup>) have been shipped in FY 2004, which is 35 m<sup>3</sup> more than planned.

**TRU Waste Retrieval:** A total of 55 m<sup>3</sup> of suspect TRU waste was retrieved in January 2004, which is 50 m<sup>3</sup> more than planned. For FY 2004, a total of 72 m<sup>3</sup> has been retrieved, which is 52 m<sup>3</sup> more than planned. Retrieval operations in Trench 4 were initiated on January 13, 2004, two days before the Tri-Party Agreement (TPA) commitment date.

**Mixed Low Level Waste (MLLW) Treatment:** FH dispositioned 151 m<sup>3</sup> of MLLW in January 2004. For FY 2004, a total of 2,627m<sup>3</sup> has been dispositioned, which is 147 m<sup>3</sup> more than planned. Of this volume, 1,630 m<sup>3</sup> is from disposal of 183-H Basin waste at the Environmental Restoration Disposal Facility (ERDF). The optimization treatability study on 183-H Basin precipitated crystals was initiated at ERDF. This will determine if a higher waste loading can be achieved, which will reduce treatment costs and time.

**Liquid Waste Processing:** The 200 Area Effluent Treatment Facility (ETF) processed and disposed of 3.7 million gallons for a total of 26 million gallons in CY 2003. The 300 Area Treated Effluent Disposal Facility processed and disposed of 3.6 million gallons of industrial waste water. FH continued the processing of Basin 43 Comprehensive Environmental Response Compensation and Liability Act waste. FH completed the 200 ETF maintenance outage, including repair of the ultraviolet/oxidation and Reverse Osmosis feed pumps.

**Groundwater Remediation:** FH finished perforating (the first step) 34 wells identified for decommissioning on January 30, 2004. Groundwater completed three remaining wells to meet the first increment under the well-drilling draft Performance Incentive. Other groundwater accomplishments include:

- Cut and capped water supply lines for 75% of the raw water system in 100-D Area on January 20, 2004.
- Identified the location of, and staked the first phase of, wells for extension of the In Situ Redox Manipulation barrier for the new chromium groundwater contamination plume in the 100-D Area on January 30, 2004.
- Initiated testing of the 182-D reservoir to evaluate the response of the water table in nearby wells to reservoir water level fluctuations. The initial response indicates that there may be a significant leak in the reservoir near the reservoir's north end.

**200 Area Waste Site Remedial Actions:** FH completed drilling at 216-B-26 trench (BC Cribs and Trenches area) on January 13, 2004.

## **ISSUES (As of FEBRUARY 17, 2004)**

**TRU Program Acceleration:** The RL and DOE-HQ continue to evaluate a proposed move of the non-destructive assay (NDA) unit, the non-destructive examination (NDE) unit, and the Head Space Gas Sampling (HSGS) Accelerated Processing Line (APL) units to the Nevada Test Site. FH is awaiting certification of the APL NDA and NDE units, and cannot ship waste characterized by those units. Waste characterization continues with these units. The audit report supporting this certification has been submitted by Carlsbad Area Field Office to the State of New Mexico Environment Department (NMED) for approval. Other activities include:

- FH established the capability to certify and ship drums containing heat-sealed bags without having to repackage the drums with the installation of the Dart method for HSGS through drum lids. These waste shipments can begin once the APL NDA/NDE audit report is approved by the NMED.
- FH is accelerating the certification of the Plutonium Finishing Plant Mixed Oxide (MOX) residue waste stream. Sufficient waste for six shipments (168 Pipe Overpack Containers [POCs]) has been certified, and characterization work for the remaining MOX waste (approximately 900 POCs) is planned by March 31, 2004.
- FH will obtain *S3000 (Solids)* Waste Summary Category certification to allow shipment of approximately 600 ash POCs. The audit report for this certification was submitted to the NMED on January 8, 2004. This will release approximately 21 shipments of POCs; all of the characterization work for these POCs is complete.

## **FY 2004 FH FUNDS VS. FORECAST (\$000)**

	<b>FY 2004 Anticipated Funding w/Carryover</b>	<b>FY 2004 Fiscal Year Spend Forecast</b>	<b>Variance</b>
<b>RL-0013</b> Solid Waste Stabilization & Disposition	\$ 136,784	\$ 136,784	\$ 0
<b>RL-0030</b> Soil & Water Remediation, Groundwater/Vadose Zone	\$ 36,394	\$ 36,394	\$ 0
<b>RL-0080</b> Operate Waste Disposal Facility	\$ 3,920	\$ 3,941	\$ (21)
<b>Total</b>	<b>\$ 177,098</b>	<b>\$ 177,119</b>	<b>\$ (21)</b>

## FY 2004 SCHEDULE/COST PERFORMANCE (\$000)

		Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
<b>RL-0013</b>	Solid Waste Stabilization & Disposition	44,956	49,863	40,916	4,907	11%	8,946	18%	145,534
<b>RL-0030</b>	Soil & Water Remediation, Groundwater/ Vadose Zone	11,292	10,966	9,588	-326	-3%	1,377	13%	37,876
<b>RL-0080</b>	Operate Waste Disposal Facility	886	728	762	-158	-18%	-33	-5%	3,249
<b>Total</b>		<b>57,133</b>	<b>61,556</b>	<b>51,267</b>	<b>4,423</b>	<b>7%</b>	<b>10,289</b>	<b>17%</b>	<b>186,660</b>

**NOTE:** The above excludes Work for Others associated with these PBSs, as Work for Others is reported in Section H.  
Numbers are rounded to the nearest \$K.

**Schedule Performance:** The PBS RL-0013 favorable schedule variance of \$4,907K/11% is primarily the result of WIPP shipments being well ahead of plan due to acceleration initiatives started last spring (\$12.0M). These are offset by:

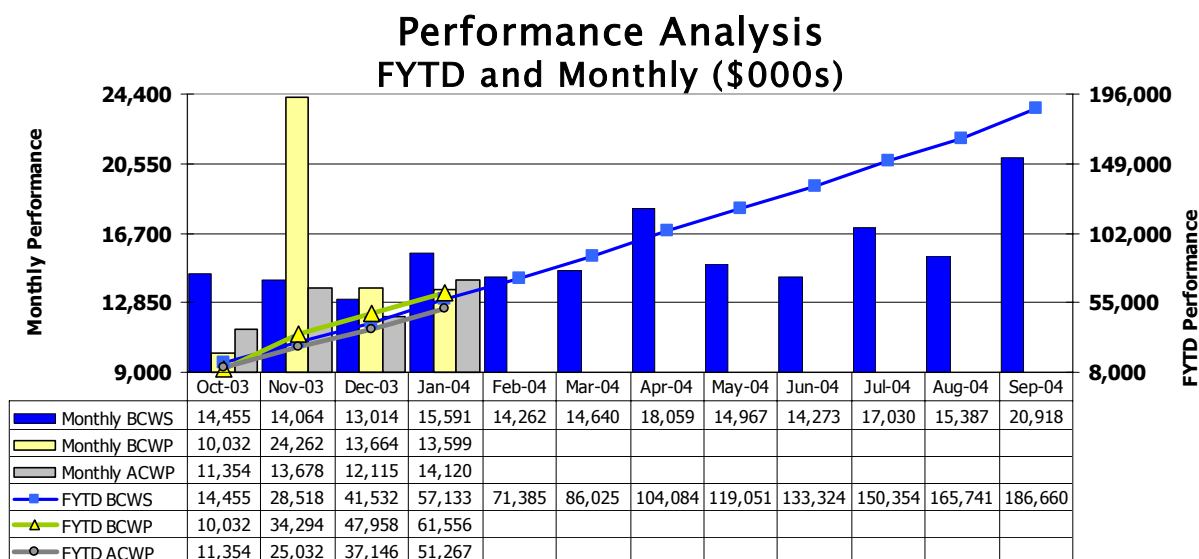
- Delays with receipt of K Basin sludge at T Plant (\$-4.4M);
- TRU retrieval is three months behind schedule due to delays in the issuance of the Safety Evaluation Report (SER) and the requirement for an Independent Verification Review prior to the scheduled Readiness Assessment (\$-1.3M); and
- Several Waste Disposal/Groundwater Remediation projects have been deferred or cancelled to accommodate FY 2004 funding reductions (\$-1.9M).

**Cost Performance:** The PBS RL-0013 favorable cost variance of \$8,946/18% is primarily because the Waste Receiving and Packaging facility has been operating at the high end of the planned production range, and FY 2003 performance for WIPP shipments was recognized in FY 2004 (\$12.2M). Also MLLW treatment includes 183-H disposal at ERDF at lower unit costs through January 2004 (\$1.8M). These are offset by:

- K Basin sludge preparation activities at T Plant (\$-4.7M); and
- TRU retrieval proceeding with emerging workscope to adhere to the new Safety Basis and SER Requirements (\$-2.7M).

The PBS RL-030 favorable cost variance of \$1,377K/13% is primarily the result of a lower Closure Services cost allocation due to delays in placing new contracts while under continuing resolution.

## FY 2004 SCHEDULE/COST PERFORMANCE , CONTINUED



## MILESTONE ACHIEVEMENT

M-24-000	Install RCRA Groundwater Monitor Wells at Rate of up to 50 in CY 2003, if required	TPA	12/31/03	—	Complete 12/30/03
M-91-03A	Submit Revisions to the Hanford Site TRU/TRUM and MLLW PMP to Ecology	TPA	12/31/03	—	Complete 12/31/03
M-26-07A	Submit Evaluation of Status of Development of Tritium Treatment Technology	TPA	3/31/04	3/31/04	On schedule